

WHAT IS CLAIMED IS:

1. An image recording apparatus comprising:

a recording unit operable to record an image onto a recording medium using a recording head;

5 recovery means for performing a recovery operation to recover a condition of recording by the recording head;

an image data generation unit operable to generate image data of the image to be recorded in the recording  
10 unit;

pseudo-time measuring means for generating pseudo-time data;

calculation means for calculating a time interval in which the recording unit is not performing the  
15 recording operation in accordance with the generated pseudo-time data; and

control means for determining the recovery operation to be executed before recording the generated image data in accordance with the time interval  
20 calculated by the calculation means and controlling the recovery operation by the recovery means based on the determination.

2. The image recording apparatus according to claim 1,  
25 wherein

the recording head is an ink-jet type recording head which ejects ink for recording, and

the recovery means performs the recovery operation by discharging the ink from the recording head.

3. An image processing apparatus comprising:

5 first control means for controlling generation of image data used for recording in a recording unit which records an image onto a recording medium;

pseudo-time measuring means for generating pseudo-time data;

10 calculation means for calculating a time interval in which the recording unit is not performing a recording operation in accordance with the generated pseudo-time data; and

second control means for determining recording  
15 preparation processing to be executed before recording the generated image data in accordance with the time interval calculated by the calculation means and controlling the processing based on the determination.

20 4. The image processing apparatus according to claim 3, further comprising:

first detection means for detecting a power state of the first control means; and

second detection means for detecting a power state  
25 of the second control means,

wherein the second control means executes the recording preparation processing irrespective of the

pseudo-time data either when the first detection means detects power-OFF or when the second detection means does not detect power-OFF.

- 5    5.    The image processing apparatus according to claim 3, further comprising:

          an interface that establishes connection with an external information processing device having time measuring means capable of generating real time data  
10    and receives the real time data; and

          data control means for processing the received real time data,

          wherein the data control means switches the pseudo-time data to the real time data when the  
15    interface receives the real time data.

6.    The image processing apparatus according to claim 3, wherein the calculation means calculates a time interval in which the recording unit is not performing  
20    the recording operation in accordance with the switched real time data.

7.    The image processing apparatus according to claim 3, wherein

25           the recording unit includes an ink-jet recording head which records by ejecting ink, and

the recording preparation processing includes recovery processing by suction for the recording head.

8. The image processing apparatus according to claim 5 3, wherein the recording unit includes a recording head which ejects ink utilizing thermal energy and has a thermal energy converting element for generating the thermal energy to be applied to the ink.

10 9. A method of controlling an image processing apparatus comprising:

a first controlling step of controlling generation of image data to be recorded;

15 a pseudo-time measuring step of generating pseudo-time data;

a calculating step of calculating a time interval in which a recording unit is not performing a recording operation in accordance with the generated pseudo-time data; and

20 a second controlling step of determining recording preparation processing to be executed before recording of the generated image data based on the time interval calculated in the calculating step and controlling the processing in accordance with the determination.

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10. The method of controlling an image processing apparatus according to claim 9, further comprising:

a first detecting step of processing detection of a power state of first control means for controlling generation of the image data to be recorded;

a second detecting step of determining the  
5 recording preparation processing to be executed before recording of the image data, and processing detection of a power state of second control means for controlling the processing in accordance with the determination,

10 wherein

the second controlling step includes a step of executing the recording preparation processing irrespective of the pseudo-time data either when power-OFF is detected in the first detecting step or when  
15 power-OFF is not detected in the second detecting step.

11. The method of controlling an image processing apparatus according to claim 9, further comprising:

a receiving step of establishing connection with  
20 an external image processing device having time measuring means capable of generating real time data and receiving the real time data; and

a data controlling step of processing the received real time data,

25 wherein the data control step includes a step of switching the pseudo-time data to the real time data

when the real time data is received in the receiving step.

12. The method of controlling an image processing  
5 apparatus according to claim 9, wherein the calculating step includes a step of calculating the time interval in which the recording unit is not performing the recording operation in accordance with the switched real time data.

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13. A program for controlling an image processing apparatus, the program causing a computer to execute:  
a first controlling step of controlling generation of image data to be recorded;

15 a pseudo-time measuring step of generating pseudo-time data;

a calculating step of calculating a time interval in which a recording unit is not performing a recording operation in accordance with the generated pseudo-time  
20 data; and

a second controlling step of determining recording preparation processing to be executed before recording of the generated image data based on the time interval calculated in the calculating step and controlling the  
25 processing in accordance with the determination.